Islands in the Stream Expedition

2001 Field Season

Dive Summary

Gladden Spit

5/15/2001

Belize, Islands in the Stream

Overview of Dive A21-108 at Gladden Spit

Steve Gittings piloted this dive at the site known as Gladden Spit on 5/15/2001 starting at 10:24:00. Total dive time was 4:29:00 and the maximum depth reached was 450 feet. (All times GMT)

Dive Objectives. Objectives accomplished during the dive include:

Exploration/Recon	Primary
Fish Assessment	Secondary
Benthic Assessment	Secondary
Geologic Assessment	Secondary
Transect(s)	Secondary
Filming	Secondary

Data Collected. Types of data collected during the dive include:

Tracking		
Digital Video Tapes	1	Video annotation completed
Digital Video Tapes	1	
Digital Video Tapes	1	

Living Marine Resources Abundance

few 2-10; many 11 - 100; abundant >100

Pelagic Fish	Many
Bottom Fish	Many
Crustacean	Single
Mollusk	Few
Echinoderm	Few

Other Benthic

Agaricia at 85 m

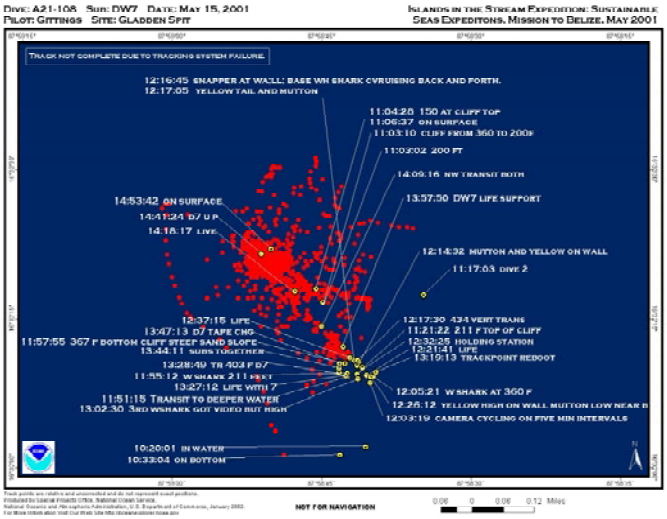
Observations and Comments on Living Marine Resources:

General Comments

Fish abundance was fairly low on the sand slope and most of the vertical wall. It was highest on the uppermost few meters of the wall and included some of the species known to spawn in this area. Fairly high numbers of mutton snapper, yellowtail snapper, and dog snapper were seen on the upper levels. Whale sharks may cruise along this wall when they are not actively feeding around the spawning aggregations. There was a conspicuous lack of planktivores over the features in this area compared to a number of other places surveyed in the past. Elsewhere, species like the roughtongue bass, red barbier, and threadnose bass swarm over deep features. Creolefish, creole wrasse, bogas, blue and brown chromis, and bluehead wrasse are seen over reefs in shallow water. In fact, planktivore schools are not limited to reefs in warm water, and they can be found in abundance over a variety of features (e.g. Cordell Bank north of the Farallon Islands, and Sonnier Bank in the northern Gulf of Mexico). At Gladden Spit, low productivity in the water column may limit the populations of planktivores and other species that consume suspended material. Thus, diversity and abundance of planktivores on reefs may be, to a degree, independent of benthic development. Though substrate is essential for refuge, substrate type may be less important than water column productivity in supporting plantivore populations.

Dive Track Description

Dropped at bottom of vertical wall and worked up and down wall to test cameras and sub systems. The bottom profile between 50 m and 150 m consisted of a vertical wall with exposed hard bottom and small ledges and crevices, below which was a steeply sloping bottom consisting of sand and rubble. The bottom on the slope was very unstable, and movement of sand and rubble was frequently observed, particularly when disturbed by the sub. There was considerable evidence of slumping. The slope had intermittent rubble field and bare sand areas, probably caused by slumping of debris. Video on the dive was collected along both types of substrates. Relief of features observed during the dive ranged from to 70 m wall meters.



Observed Human Activities

None Observed.

Observed Human Impacts

Fishing line	A lot of fishing line is
Fishing line	A lot of fishing line is

Overall Dive Site Ratings

1 = low; 10 = high

Uniqueness	9
Health	7
Disturbance	5
Biodiversity	4

Observed Fish Abundance

few 2-10; many 11 - 100; abundant >100

Other Snapper	Many
Almaco Jack	Few
Tattler	Few
Other Damselfish	Few
Queen Angelfish	Single
Reef Butterfly	Single
Other Angelfish	Single
Bank Butterfly	Few
Other Wrasses	Few

Prepared by :
National Oceanic and Atmospheric Administration
5/16/2001